

# **AOC 22B2HM2 LCD Monitor User Manual**

Home » AOC » AOC 22B2HM2 LCD Monitor User Manual



#### **Contents**

- 1 AOC 22B2HM2 LCD
- **Monitor**
- 2 Safety
- 3 Power
- 4 Installation
- 5 Cleaning
- **6 Contents in Box**
- 7 Connecting the Monitor
- **8 Wall Mounting**
- 9 Adjusting
- 10 Luminance
- 11 LED Indicator
- 12 Troubleshoot
- 13 Specification
- **14 Preset Display Modes**
- 15 Plug and Play
- 16 Documents / Resources
  - 16.1 References
- 17 Related Posts



**AOC 22B2HM2 LCD Monitor** 



### Safety

#### **National Conventions**

The following subsections describe notational conventions used in this document. **Notes, Cautions, and Warnings** 

#### Notes, Cautions, and Warnings

Throughout this guide, blocks of text may be accompanied by an icon and printed in bold type or in italic type. These blocks are notes, cautions, and warnings, and they are used as follows:

**NOTE:** A NOTE indicates important information that helps you make better use of your computer system.

**CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

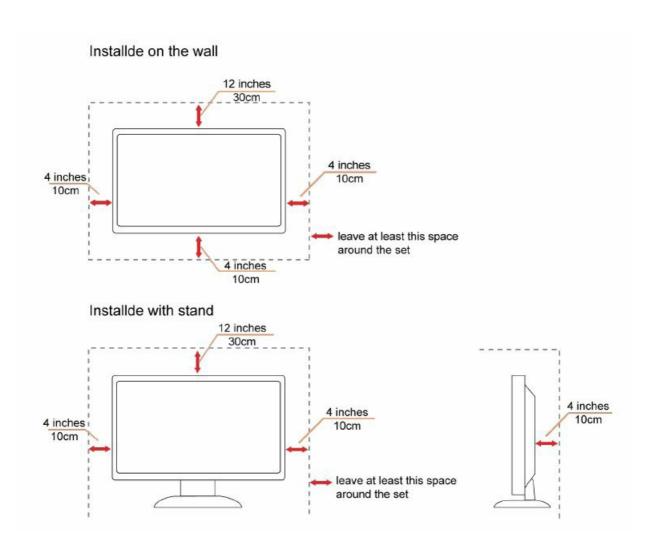
**WARNING:** A WARNING indicates the potential for bodily harm and tells you how to avoid the problem. Some warnings may appear in alternate formats and may be unaccompanied by an icon. In such cases, the specific presentation of the warning is mandated by regulatory authority.

#### **Power**

- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- Unplug the unit during a lightning storm or when it will not be used for long periods of time. This will protect the monitor from damage due to power surges.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100-240V AC, Min. 5A.
- The wall socket shall be installed near the equipment and shall be easily accessible.
- For use only with the attached power adapter.

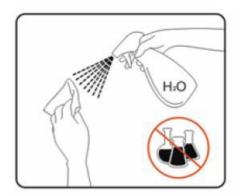
#### Installation

- Do not place the monitor on an unstable cart, stand, tripod, bracket, or table.
- If the monitor falls, it can injure a person and cause serious damage to this product. Use only a cart, stand, tripod, bracket, or table recommended by the manufacturer or sold with this product. Follow the manufacturer's instructions when installing the product and use mounting accessories recommended by the manufacturer. A product and cart combination should be moved with care.
- Never push any object into the slot on the monitor cabinet. It could damage circuit parts causing a fire or electric shock. Never spill liquids on the monitor.
- Do not place the front of the product on the floor.
- If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacturer and follow the kit instructions.
- Leave some space around the monitor as shown below. Otherwise, air-circulation may be inadequate hence overheating may cause a fire or damage to the monitor.
- To avoid potential damage, for example the panel peeling from the bezel, ensure that the monitor does not tilt downward by more than -5 degrees. If the -5 degree downward tilt angle maximum is exceeded, the monitor damage will not be covered under warranty.
- See below the recommended ventilation areas around the monitor when the monitor is installed on the wall or on the stand:

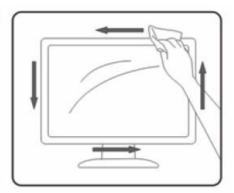


### Cleaning

- Clean the cabinet regularly with cloth. You can use soft-detergent to wipe out the stain, instead of strongdetergent which will cauterize the product cabinet.
- When cleaning, make sure no detergent is leaked into the product. The cleaning cloth should not be too rough as it will scratch the screen surface.
- Please disconnect the power cord before cleaning the product.





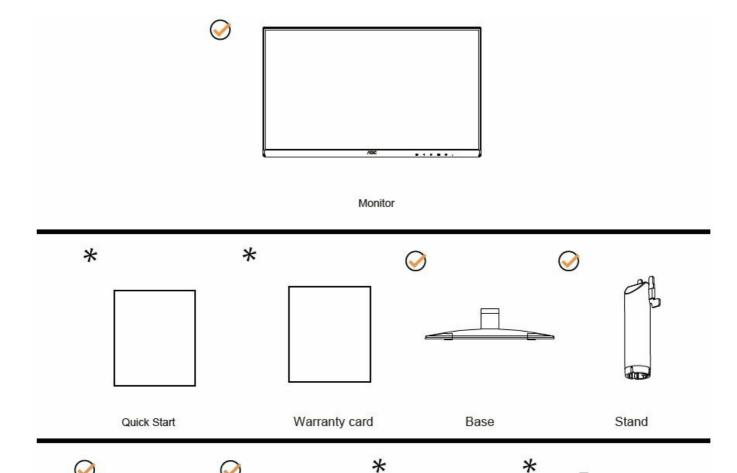


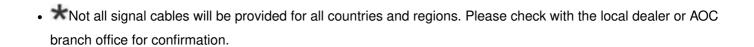
#### Other

- If the product is emitting a strange smell, sound or smoke, disconnect the power plug IMMEDIATELY and contact a Service Center.
- Make sure that the ventilating openings are not blocked by a table or curtain.
- Do not engage the LCD monitor in severe vibration or high impact conditions during operation.
- Do not knock or drop the monitor during operation or transportation.
- IThe power cords shall be safety approved. For Germany, it shall be H03VV-F, 3G, 0.75 mm2, or better. For other countries, the suitable types shall be used accordingly.
- IExcessive sound pressure from earphones and headphones can cause hearing loss. Adjustment of the
  equalizer to maximum increases the earphones and headphones output voltage and therefore the sound
  pressure level.

#### Setup

#### **Contents in Box**





**HDMI** Cable

VGA Cable

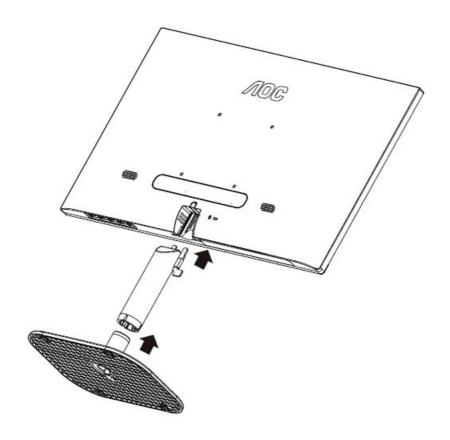
### **Setup Stand & Base**

Power Cable

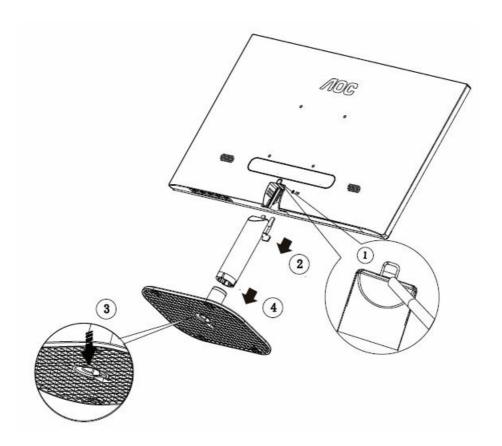
Please setup or remove the base following the steps as below.

Adapter

## Setup

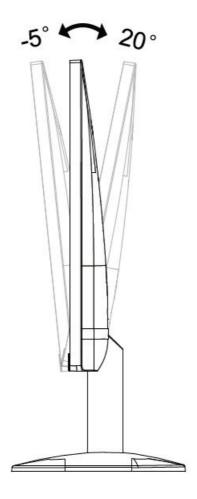


#### Remove



## **Adjusting Viewing Angle**

- For optimal viewing it is recommended to look at the full face of the monitor, then adjust the monitor's angle to your own preference.
- Hold the stand so you will not topple the monitor when you change the monitor's angle.
- You are able to adjust the monitor as below:



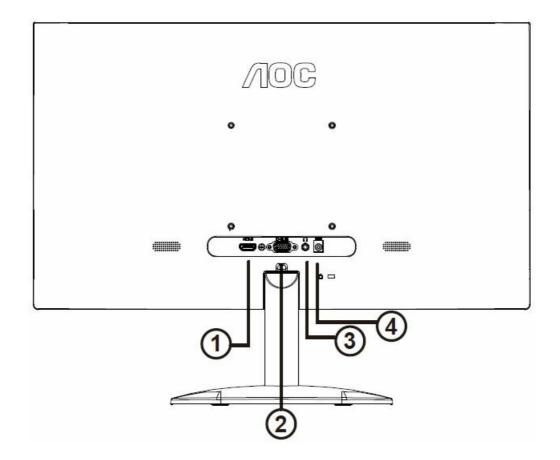
#### **NOTE**

Do not touch the LCD screen when you change the angle. It may cause damage or break the LCD screen. **WARNING** 

- 1. To avoid potential screen damage, such as panel peeling, ensure that the monitor does not tilt downward by more than -5 degrees.
- 2. Do not press the screen while adjusting the angle of the monitor. Grasp only the bezel.

## **Connecting the Monitor**

Cable Connections In Back of Monitor and Computer:



- 1. HDMI
- 2. Analog (D-Sub 15-Pin VGA cable)
- 3. Earphone
- 4. Power

#### **Connect to PC**

- 1. Connect the power cord to the back of the display firmly.
- 2. Turn off your computer and unplug its power cable.
- 3. Connect the display signal cable to the video connector on the back of your computer.
- 4. Plug the power cord of your computer and your display into a nearby outlet.
- 5. Turn on your computer and display.

If your monitor displays an image, installation is complete. If it does not display an image, please refer Troubleshooting.

To protect equipment, always turn off the PC and LCD monitor before connecting.

## **Wall Mounting**

Preparing to Install An Optional Wall Mounting Arm.

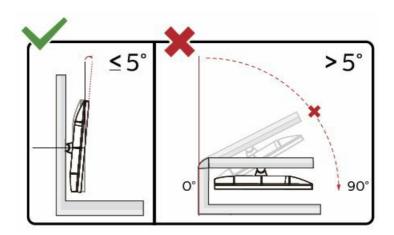


This monitor can be attached to a wall mounting arm you purchase separately. Disconnect power before this procedure.

Follow these steps:

- 1. Remove the base.
- 2. Follow the manufacturer's instructions to assemble the wall mounting arm.
- 3. Place the wall mounting arm onto the back of the monitor. Line up the holes of the arm with the holes in the back of the monitor.
- 4. Insert the 4 screws into the holes and tighten.
- 5. Reconnect the cables. Refer to the user's manual that came with the optional wall mounting arm for instructions on attaching it to the wall.

**Noted:** VESA mounting screw holes are not available for all models, please check with the dealer or official department of AOC.



\* Display design may differ from those illustrated.

#### **WARNING**

- 1. To avoid potential screen damage, such as panel peeling, ensure that the monitor does not tilt downward by more than -5 degrees.
- 2. Do not press the screen while adjusting the angle of the monitor. Grasp only the bezel.

#### **Adaptive-Sync function**

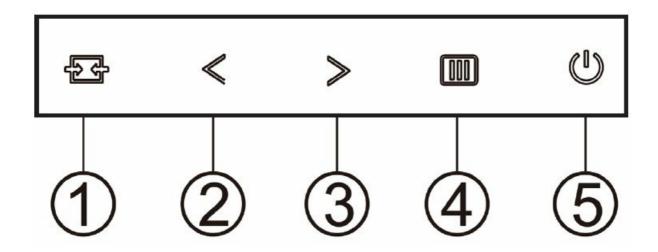
- 1. Adaptive-Sync function is working with HDMI
- 2. Compatible Graphics Card: Recommend list is as the below, also could be checked by visiting

#### www.AMD.com.

- Radeon™ RX Vega series
- Radeon™ RX 500 series
- Radeon™ RX 400 series
- Radeon™ R9/R7 300 series R9 370/X, R7 370/X, R7 265 except
- Radeon™ Pro Duo (2016)
- Radeon™ R9 Nano series
- Radeon™ R9 Fury series
- Radeon™ R9/R7 200 series (R9 270/X, R9 280/X except)

## **Adjusting**

### **Hotkeys**



1	Source/Auto/Exit
2	Clear Vision/<
3	Volume/Image ratio/>
4	Menu/Enter
5	Power

#### Menu/Enter

• When there is no OSD, Press to display the OSD or confirm the selection.

#### **Power**

• Press the Power button to turn on the monitor.

### Volume/Image ratio

- When there is no OSD, Press > Volume button to active volume adjustment bar, Press < or > to adjust volume.
- When there is no OSD, Press > hotkey to active image ratio, Press < or > to adjust 4:3 or wide. (If the product

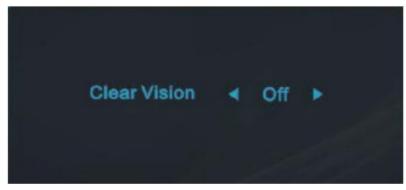
screen size is 4:3 or input signal resolution is wide format, the hot key is disable to adjust).

#### Source/Auto/Exit

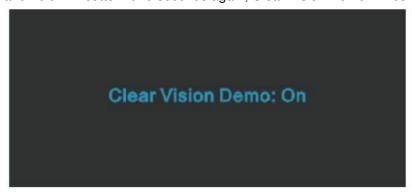
- When the OSD is closed, press Source/Auto/Exit button will be Source hot key function.
- When the OSD is closed, press Source/Auto/Exit button continuously about 2 second to do auto configure (Only for the models with D-Sub).

#### **Clear Vision**

- 1. When there is no OSD, Press the "<" button to activate Clear Vision.
- 2. Use the ">" or ">" buttons to select between weak, medium, strong, or off settings. Default setting is always "off".



3. Press and hold "<" button for 5 seconds to activate the Clear Vision Demo, and a message of "Clear Vision Demo: on" will be display on the screen for a duration of 5 seconds. Press Menu or Exit button, the message will disappear. Press and hold "<" button for 5 seconds again, Clear Vision Demo will be off.



Clear Vision function provides the best image viewing experience by converting low resolution and blurry images into clear and vivid images.

#### **OSD Setting**

Basic and simple instruction on the control keys.



- 1. Press the MENU-button to activate the OSD window.
- 2. Press Left or Right to navigate through the functions. Once the desired function is highlighted, press the MENU-button to activate it, press Left or Right to navigate through the sub-menu functions. Once the desired function is highlighted, press MENU-button to activate it.
- 3. Press < Left or > to change the settings of the selected function. Press to exit. If you want to adjust any other function, repeat steps 2-3.
- 4. OSD Lock Function: To lock the OSD, press and hold the MENU-button while the monitor is off and then press power button to turn the monitor on. To un-lock the OSD press and hold the MENU-button while the monitor is off and then press power button to turn the monitor on.

#### **Notes**

- 1. If the product has only one signal input, the item of "Input Select" is disable to adjust.
- 2. ECO modes (except Standard mode), DCR, DCB mode and Picture Boost, for these four states that only one state can exist.

#### Luminance



		*		·
	Contrast	0-100		Contrast from Digital-register.
	Brightness	0-100		Backlight Adjustment.
		Standard	$\checkmark$	Standard Mode.
		Text	T	Text Mode.
		Internet	<b>E</b>	Internet Mode.
	Eco mode	Game	منتق	Game Mode.
		Movie	6	Movie Mode.
		Sports	30	Sports Mode.
		Reading	R	Reading Mode.
	Gamma	Gamma1		Adjust to Gamma 1.
		Gamma2		Adjust to Gamma 2.
		Gamma3		Adjust to Gamma 3.
	DCR	On	DCR	Enable dynamic contrast ratio.
8	DON	Off		Disable dynamic contrast ratio.
		Off		
		HDR Picture		Select HDR Mode.
	HDR Mode	HDR Movie		Sciect and ividue.
		HDR Game		

When "HDR Mode" is set to "non-off", the items "Contrast", "ECO", "Gamma" cannot be adjusted.

## Image Setup



	Clock	0-100	Adjust picture Clock to reduce Vertical-Li ne noise.
	Phase	0-100	Adjust Picture Phase to reduce Horizont al-Line noise
<b>+</b>	Sharpness	0-100	Adjust picture sharpness
	H. Position	0-100	Adjust the horizontal position of the picture.
V. Positio	0-100	Adjust the vertical position of the picture.	

## **Color Setup**



	Warm	Recall Warm Color Temperature from EEPROM.
	Normal	Recall Normal Color Temperature from EEPROM.
Color Temp.	Cool	Recall Cool Color Temperature from EEPROM.
Color romp.	User	Restore Color Temperature from EEPROM.
Color Gamut	Panel Native	Recall Panel Native Color Temperature from EEPROM.
	sRGB	Recall SRGB Color Temperature from EEPROM.
LowBlue Mode	Reading / Office / Internet / Multimedia / Of f	Decrease blue light wave by controlling color temperatur e.
	Off	Disable DCB Mode.
	Full Enhance	Disable or Enable Full Enhance Mode
	Nature Skin	Disable or Enable Nature Skin Mode
	Green Field	Disable or Enable Green Field Mode
DCB Mode	Sky-blue	Disable or Enable Sky-blue Mode
	AutoDetect	Disable or Enable AutoDetect Mode
DCB Demo	On or Off	Disable or Enable Demo
Red	0-100	Red gain from Digital-register.
Green	0-100	Green gain from Digital-register.
Blue	0-100	Blue gain from Digital-register.

When "HDR Mode" under "Luminance" is set to "non-off", all items under "Color Setup" cannot be adjusted.

### **Picture Boost**



	Bright Frame	On or Off	Disable or Enable Bright Frame
	Frame Size	14-100	Adjust Frame Size
	Brightness	0-100	Adjust Frame Brightness
	Contrast	0-100	Adjust Frame Contrast
	H. position	0-100	Adjust Frame horizontal Position
	V. position	0-100	Adjust Frame vertical Position

Adjust the brightness, contrast, and position of the Bright Frame for better viewing experience. When "HDR Mode" under "Luminance" is set to "non-off", all items under "Picture Boost" cannot be adjusted.

### **OSD Setup**



	Language		Select the OSD language
	Timeout	5-120	Adjust the OSD Timeout
	H. Position	0-100	Adjust the horizontal position of OSD
	V. Position	0-100	Adjust the vertical position of OSD
	Transparence	0-100	Adjust the transparence of OSD
			Break reminder if the user continuously work for more
	Break Reminder	on or off	than 1hrs

## **Game Setting**



Off	No optimization by Smart image game

		For playing FPS (first Person Shooters) games.
	FPS	Improves dark theme black level details.
	RTS	For playing RTS (Real Time Strategy). Improves the image quality.
Game Mode	Racing	For playing Racing games, Provides fastest response time and high color saturation.
	Gamer 1	User's preference settings saved as Gamer 1.
	Gamer 2	User's preference settings saved as Gamer 2.
	Gamer 3	User's preference settings saved as Gamer 3.
		Shadow Control Default is 50, then end-user can a djust from 50 to 100 or 0 to increase contrast for cl ear picture.  1. If picture is too dark to be saw the detail cle arly, adjusting from 50 to 100 for clear picture.
Shadow Control	0-100	2. If picture is too white to be saw the detail cl early,
		adjusting from 50 to0 for clear picture
		The "Dial Point" function places an aiming indicator in the
Dial Point	On or Off	center of screen for helping gamers to play First P erson  Shooter (FPS) games with an accurate and precis e aiming.
Game Color	0-20	Game Color will provide 0-20 level for adjusting sat uration to get better picture.
	Off	
	Weak	
	Medium	
	Strong	
	Off	
Overdrive		Adjust the response time.



	Adaptive-Sync	On or Off	Disable or Enable Adaptive-Sync.c  Adaptive-Sync Run Reminder: When the Adaptive- Sync feature is enabled, there may be fl ashing in some game environments.
	Frame Counter	Off / Right-up / Right- Down / Left-Down / Left-Up	Display V frequency on the corner selected

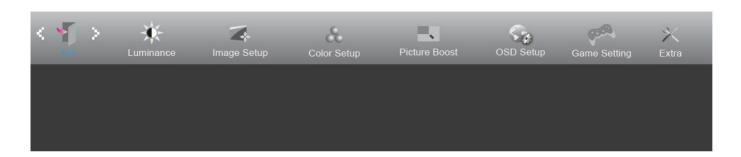
When "HDR Mode" under "Luminance" is set to "non-off", the items "Game Mode", "Shadow Control", "Game Color", "Low Blue Mode" cannot be adjusted.

#### Extra



	Input Select		Select Input Signal Source
	Auto Config.	Yes or No	Auto adjust the picture to default. (For D-SUB models)
21	Off Timer	0-24hrs	Select DC off time
		Wide	
	Image Ratio	4:3	Select image ratio for display.
	DDC/CI	Yes or No	Turn ON/OFF DDC/CI Support
	Reset	Yes or No	Reset the menu to default

#### Exit





## **LED Indicator**

Status	LED Color
Full Power Mode	Green
Active-off Mode	Green Blinking

## **Troubleshoot**

Problem & Question	Possible Solutions		
Power LED Is Not ON	Make sure the power button is ON and the Power Cord is properly connected to a grounded power outlet and to the monitor.		
	Is the power cord connected properly?		
	Check the power cord connection and power supply. Is the cable connected c orrectly?		
	(Connected using the VGA cable) Check the VGA cable connection. (Connected using the HDMI cable) Check the HDMI cable connection.		
	* VGA/HDMI input is not available on every model.		
	If the power is on, reboot the computer to see the initial screen (the login screen), which can be seen.		
	If the initial screen (the login screen) appears, boot the computer in the applicable mode (the safe mode for Windows 7/8/10) and then change the frequency of the video card.		
	(Refer to the Setting the Optimal Resolution)		
	If the initial screen (the login screen) does not appear, contact the Service Center or your dealer.		
	Can you see "Input Not Supported" on the screen?		
No images on the screen	You can see this message when the signal from the video card exceeds the m aximum resolution and frequency that the monitor can handle properly.		
	Adjust the maximum resolution and frequency that the monitor can handle properly.		
	Make sure the AOC Monitor Drivers are installed.		

	Adjust the Contrast and Brightness Controls. Press to auto adjust.
Picture Is Fuzzy & Has Ghos ting Shadowing Problem	Make sure you are not using an extension cable or switch box. We recommen d plugging the monitor directly to the video card output connector on the back.
Picture Bounces, Flickers O r Wave Pattern Appears In T he Picture	Move electrical devices that may cause electrical interference as far away from the monitor as possible.  Use the maximum refresh rate your monitor is capable of at the resolution you are using.
	The Computer Power Switch should be in the ON position.
	The Computer Video Card should be snugly fitted in its slot.
	Make sure the monitor's video cable is properly connected to the computer. In spect the monitor's video cable and make sure no pin is bent.
Monitor Is Stuck In Active O ff- Mode"	Make sure your computer is operational by hitting the CAPS LOCK key on the keyboard while observing the CAPS LOCK LED. The LED should either turn O N or $$
	OFF after hitting the CAPS LOCK key.
Missing one of the primary c olors (RED, GREEN, or BLU E)	Inspect the monitor's video cable and make sure that no pin is damaged. Make sure the monitor's video cable is properly connected to the computer.
Screen image is not centere d or sized properly	Adjust H-Position and V-Position or press hot-key (AUTO).
Picture has color defects (w hite does not look white)	Adjust RGB color or select desired color temperature.
Horizontal or vertical disturb ances on the screen	Use Windows 7/8/10 shut-down mode to adjust CLOCK and FOCUS. Press to auto-adjust.
Regulation & Service	Please refer to Regulation & Service Information which is in the CD manual or <u>www.aoc.com</u> (to find the model you purchase in your country and to find Re gulation & Service Information in Support page.

# Specification

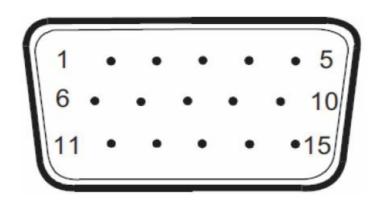
## **General Specification**

	Model name	22B2HM2				
	Driving system	TFT Color LCD				
	Viewable Image Size	54.5cm diagonal				
	Pixel pitch	0.2493 (H)mm x 0.241 (V) mm				
Panel	Video	R, G, B Analog Interface & HDMI Interface				
. 4.101	Separate Sync	H/V TTL				
	Display Color	16.7M Colors				
	Horizontal scan range	30k-115kHz				
	Horizontal scan Size( Maximum)	478.656mm				
	Vertical scan range	48-100Hz	48-100Hz			
	Vertical Scan Size(M aximum)	260.28mm				
	Optimal preset resolution	1920×1080@60Hz				
	Max resolution	1920×1080@60Hz(VGA)				
		1920×1080@100Hz(HDMI)				
Others	Plug & Play	VESA DDC2B/CI				
	Power Source	19Vdc,1.31A				
	Power Consumption	Typical(default brightness and contrast) 20W				
		Max.(brightness =	≤ 23W			
		Standby mode ≤0.3W				
Physical Characteri	Connector Type	HDMI/D-Sub/Earphone out				
stics	Signal Cable Type	Detachable				
	Temperature	Operating	0°C~ 40°C			
Environm		Non-Operating	-25°C~ 55°C			
	Humidity	Operating	10% ~ 85% (Non-Condensing)			
		Non-Operating	5% ~ 93% (Non-Condensing)			
Environm ental	Altitude	Operating	0~ 5000 m (0~ 16404ft )			
	Ailliude	Non-Operating	0~ 12192m (0~ 40000ft )			

# **Preset Display Modes**

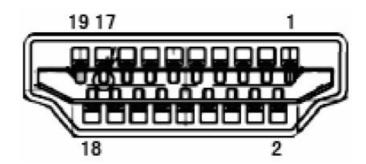
STANDARD	NDARD RESOLUTION		VERTICAL FREQUENCY (Hz)
	640×480@60Hz	31.469	59.94
VGA	640×480@72Hz	37.861	72.809
	640×480@75Hz	37.5	75
MAC MODES VGA	640×480@67Hz	35	66.667
IBM MODE	720×400@70Hz	31.469	70.087
	800×600@56Hz	35.156	56.25
	800×600@60Hz	37.879	60.317
SVGA	800×600@72Hz	48.077	72.188
	800×600@75Hz	46.875	75
MAC MODES SVGA	832×624@75Hz	49.725	74.5
	1024×768@60Hz	48.363	60.004
XGA	1024×768@70Hz	56.476	70.069
	1024×768@75Hz	60.023	75.029
	1280×1024@60Hz	63.981	60.02
SXGA	1280×1024@75Hz	79.976	75.025
	1280×720@60HZ	45	60
WSXG	1280×960@60Hz	60	60
WXGA+	1440×900@60Hz	55.935	59.876
WSXGA+	1680×1050@60Hz	65.29	59.954
	1920×1080@60Hz	67.5	60
FHD	1920×1080@75Hz	83.9	75
	1920×1080@100Hz	110.000	100.000

# Pin Assignments



## 15-Pin Color Display Signal Cable

Pin No.	Signal Name	Pin No.	Signal Name
1.	Video-Red	9	+5V
2.	Video-Green	10	Ground
3.	Video-Blue	11	N.C.
4.	N.C.	12	DDC-Serial data
5.	Detect Cable	13	H-sync
6.	GND-R	14	V-sync
7.	GND-G	15	DDC-Serial clock
8.	GND-B		



## 19-Pin Color Display Signal Cable

Pin N o.	Signal Name	Pin N o.	Signal Name	Pin N o.	Signal Name
1.	TMDS Data 2+	9.	TMDS Data 0-	17.	DDC/CEC Ground
2.	TMDS Data 2 Shield	10.	TMDS Clock +	18.	+5V Power
3.	TMDS Data 2-	11.	TMDS Clock Shield	19.	Hot Plug Detect
4.	TMDS Data 1+	12.	TMDS Clock-		
5.	TMDS Data 1Shield	13.	CEC		
6.	TMDS Data 1-	14.	Reserved (N.C. on device )		
7.	TMDS Data 0+	15.	SCL		
8.	TMDS Data 0 Shield	16.	SDA		

## Only for certain models

# Plug and Play

## Plug & Play DDC2B Feature

- This monitor is equipped with VESA DDC2B capabilities according to the VESA DDC STANDARD. It allows the
  monitor to inform the host system of its identity and, depending on the level of DDC used, communicate
  additional information about its display capabilities.
- The DDC2B is a bi-directional data channel based on the I2C protocol. The host can request EDID information over the DDC2B channel.

#### www.aoc.com.

©2023 AOC. All Rights Reserved.

#### **Documents / Resources**



AOC 22B2HM2 LCD Monitor [pdf] User Manual 22B2HM2, 22B2HM2 LCD Monitor, LCD Monitor, Monitor

#### References

- AMD I together we advance Al
- ✓ Homepage | AOC Monitors

Manuals+,